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AN ANGLING LIBRARY AND SOME OF ITS TREASURES

BY DANIEL B. FEARING, *Newport, R. I.*

This library of books on angling, fishing, fisheries, and fish culture, now numbering over twelve thousand volumes and pamphlets in twenty different languages,* had its genesis in the year 1890 in the form of a scrap-book on trout and trout fishing. From that scrap-book began the collection of books entirely on trout and trout fishing, then were added books with chapters on those subjects and so on until the entire four heads mentioned above were gradually drawn in and the library began to grow.

It is, of course, an easy matter to obtain the commoner run of books on angling, that is to say, the popular books of the day. Most of them, it would seem from careful collation, are stolen goods taken from other and earlier writers of "pot boilers" on the same subject.

As the date of publication goes further back, one would naturally suppose the value would correspondingly rise, but this is not so. There are many angling books with an imprint of before 1800, that are priced in English and Scotch second-hand bookseller's catalogs at less than one shilling and six pence or two shillings, and when sold at auction, are usually lumped in one lot of from half a dozen to a dozen and sold for perhaps half a crown the lot.

The foundation stone of an angling library is naturally the first five editions of Izaak Walton's, "The Compleat Angler," the editions that were printed before his death. Of these five, the first, printed in 1653, THE FIRST WALTON, stands at the head.

*Chinese, Danish, Dutch, English, Finnish, Flemish, French, German, Greek, Hindostanee, Hungarian, Italian, Japanese, Latin, Norwegian, Persian, Portuguese, Russian, Spanish, Swedish.

It is the most charming pastoral in the English tongue, of which Richard Le Gallienne speaks so feelingly, "To keep this in his little library he had undergone willingly many privations, cheerfully faced hunger and cold rather than let it pass from his hand; * * * perhaps, after Robinson Crusoe, the most popular of the English Classics, * * * a pastoral, the freshness of which a hundred editions have left unexhausted, a book in which the grass is forever green and the shining brooks do indeed go on forever." Another lover of old Izaak has very cleverly adapted the remark of the celebrated Dr. Botteler of strawberry fame—"doubtless a better angling book there might have been, but such, doubtless there never has been yet."

It is doubtful if there is another book in English save "The Holy Bible" that has gone into so many editions. At this date, 1915, there are over one hundred and seventy different editions of "The Compleat Angler" (this collection boasts of over one hundred and sixty). Though the expression "Waltoniana" properly means anecdotes and stories by or concerning Walton, it has come by common usage to be understood as applying in any way to the art piscatorial and one finds it so used in the majority of the catalogs of booksellers dealing in old and second-hand books.

The story of the "First Walton" reads like a fairy tale. The first that is known of the "Compleat Angler" is a small advertisement in an old London newspaper, "The Perfect Diurnal * * * From Munday, May 9, to Munday 16, 1652," reading as follows:

"'The Compleat Angler, or the Contemplative Man's Recreation,' being a Discourse of Fish and Fishing, not unworthy the perusal of most Anglers, of 18 pence price, written by Iz. Wa."

The author's name does not appear on the title page until the fifth edition published in 1676. The commendatory verses in the second edition, published in 1655, are, however, inscribed to "Mr. Izaak Walton."

Probably, no book published in the last three hundred years has so increased in value. Published originally at the price of eighteen pence, in Dr. Bethune's time (1847) he values a perfect copy at twelve guineas. A copy in the original binding, but a little soiled, was offered to the owner of this library in London in 1889 for forty-five guineas. Unluckily for him he was not at that time interested in angling books. At the sale of the Von Antwerp Library in London in 1907 Quaritch paid £1,290 for a copy in the original binding and in perfect condition. This copy formerly belonged to Locker Lampson and has a poem written in pencil by him on one of the alba. That copy is now in the library of J. P. Morgan. So high a price may never be reached again, but since that date several copies have sold for over a thousand pounds each.

A small book, some $5\frac{3}{4}$ by $3\frac{3}{4}$ inches in pristine binding, no one knows how many of this edition of 1653 were issued. As a friend has pleasantly written concerning it: "Its descriptions of nature, its sage reflections on manners and customs and the everyday problems of life, and, beyond all else, the genial humanity which show through its every page won for it quick popularity. It was a book to pick up in a leisure half-hour and skim with the assurance of a quiet pleasure which few volumes of today can convey. So it happened that the 'Compleat Angler' met with a ready sale in its first edition.

"Perhaps it was because of the low price at which it was sold, that copies of this little book of 250 years ago have disappeared so amazingly. Some were left in stage coaches, derelicts whose mission was ended after they had beguiled the weary hours of a journey; some were lost in garrets and some burned in house fires; others doubtless ruined by immersion in the streams of which the author loved to write; until to-day nobody knows how many have outlived the passage of the years."

Acknowledged by all lovers of English literature today as one of the classics of the English language, its

constantly increasing value is due more to the desire of collectors of "First Editions" of the English Classics to possess a copy, than to the generally "poor but honest angler."

This library contains three copies of "The First Walton," two perfect and one imperfect. The first copies that left the press are distinguishable by several misprints which do not exist in later impressions. One of the most sought for of these misprints is that using "contention" instead of "contentment" in the last two lines of the verses by Sir Harry Wotton: "And, if Contentment be a stranger then I'll ne'er look for it, but in Heaven again."

The second of the copies of the "First Walton" in the library is a "contention" copy and has on its title pages the autograph of "J. Venables" in a contemporary hand. This is supposed to be the autograph of some member of the family of Col. Robert Venables, who wrote the third part of the fifth edition of "The Compleat Angler," of whom more anon.

This first edition was embellished by six very pretty engravings of the trout, pike, carp, tench, perch and barbel which were inserted in the text. The engraver to this day is unknown. They have been attributed to Pierre Lombart, a Frenchman and a noted engraver resident in England at that time and engaged in illustrating books. Faithorne and Vaughn have also been mentioned as possible candidates for the honor. The latter is known to have been employed by Marriot on other work.

It has always been the belief of collectors that these plates were engraved on silver, but that fact has never been proved and still remains a disputed fact in regard to this wonderful little book. The same plates were used for the first four editions and were re-engraved in reverse, by a less artistic hand, for the fifth edition. This fact has not been generally noted by bibliographers up to 1883, when it is mentioned by Thos. Westwood. Volumes could, indeed, have been written regarding this best loved of all angling books. Famous writers by the

score have tried to bring new facts in regard to it before the eyes of a constantly increasing public.

The charm of Walton's honest writing never grows stale, one takes him up with as much pleasure in this twentieth century as in the days of his first appearance. As has been charmingly said of him, "The Companion of our boyhood, the delight of our mature years, when shall we look upon his like again? Fishers have increased and fishing books have multiplied, but where is the fisher blest with such a 'Heavenly memory' as our Izaak, and where is the fishing book so rich in honor and renown as his?"

The second edition, which appeared in 1655, was much enlarged, having been almost rewritten, and contained some one hundred and seventeen pages more, and four more plates, the bream, eel, loach and bull-head having been added. Commendatory verses by seven appreciative writers are given for the first time in this edition. Copies of this second edition, though not bringing as high a price as the first, are much more rarely met with. A little more than a hundred years after its appearance John Hawkins (afterwards Sir John) states in his "Life of Walton" in his edition of "The Compleat Angler," first issued in 1760, "The second I have never been able to see." This scarcity has continued to the present day and, while it is always possible for anyone to find a "First Walton" who is willing to pay the price for it, he would have to search for a considerable time to find a good copy of the second edition.

The third edition first appeared in 1661. This contained but few and unimportant changes. This edition again appeared in 1664 with a new title-page, and dated 1664. The latter date is much scarcer than that of 1661. The fourth edition appeared in 1668. "It is a mere paginary reprint of the third, with the exception of the 'errata' which are here corrected in the work."

The fifth edition was issued in 1676 and was called "The Universal Angler, made so, by Three Books of Fishing. The first written by Mr. Izaak Walton; the

second by Charles Cotton, Esq.; the third by Col. Robert Venables." This is the fifth edition of Walton, the first of Cotton, and the fourth of Venables. Twenty pages were added to this edition and further improvements were introduced. This was the last edition published in the author's lifetime. "The union of Walton and Cotton has been perpetuated in all subsequent reprints, but Venable's treatise, which, though meritorious, belongs to another order of composition, has been excluded." Such is the History of "The First Five." The Angler's library that is built with these for a corner stone, is certainly founded upon one of the firmest rocks of English literature. Good copies of all five are in the library.

As previously stated the reprints of this famous book have been many, from absolutely facsimile copies of the "First Walton," of which there are several, two of them magnificent volumes in folio embellished with pictures by the greatest artists.

It would seem impossible for any thing new in regard to such a well-known book to be discovered, yet it was the great good fortune of the owner of this library to find in 1910 in the catalog of a well-known book auctioneer in Boston, a small Walton and Cotton published by Septimus Prowett in London, in 1826. It is a small 32mo. in its original violet unlettered cloth binding. Printed on thin paper, this copy seems to be unique. Diligent inquiry both in this country and abroad has failed to find another copy or even the knowledge of its existence. It is not known or mentioned by any of the bibliographers of Walton, or to any of the collectors of Walton that the owner has been able to find. Bought at auction in Boston, it came in a collection of trashy novels and other books of no value in a consignment from Maine and if it had not attracted the cataloger's eye by its size and the fact that it was printed on thin paper, it would have been put into a lot of "and ten others" and probably lost to sight forever. R. B. Marston, the editor of "The Fishing Gazette" of London, and

undoubtedly the greatest living authority on Walton, has been most interested in this previously unknown edition, and in "The Fishing Gazette" of Dec. 30, 1911, he jokingly refers to it as follows: "So angling collectors, since you now know it, don't part with your copy of Walton by Prowett. Oh, Prowett! if you were now within hearing, you'd tell us, no doubt, you just made one for Fearing." This little volume, of course, after the "First Five" is one of the chief treasures of the library.

Scarce and interesting copies of Walton, some of which are indeed unique, are also to be found in the collection, a few of which have been mentioned on account of their rarity or interest as being unique copies. The copy of the first John Hawkins edition of 1760 is absolutely uncut and is in original or contemporary binding. It is the only copy in this condition of which the owner has seen or heard.

The first Major edition, London, 1823, is a large paper copy with the prints on India paper. This copy belonged to Bedford, the celebrated binder, was bound by him, and contains an autograph letter presenting it to him from John Major, the publisher.

Thomas Westwood in "*Bibliotheca Piscatoria*" speaking of this edition says: "The editor was Mr. A. Thomson, author of the '*Chronicles of London Bridge*,' 1827, but the '*Introductory Essay*,' a farrago of twaddle, was written by Major himself."

In 1833 was published "The First Rennie Edition," edited by James Rennie, A. M. This edition was reprinted without change by some twenty-five different publishers at various dates from 1834 to 1857. All but eight of these reprints are in the collection.

The year 1836 brought out the celebrated, so-called "Pickering Edition," two large 8vo, volumes printed by William Pickering, and edited by Sir Harry Nicholas. This was issued in two editions, one with plain plates, and one on large paper with the plates on India paper. The latter is the edition usually chosen by extra-illus-

trators for their labors. The library contains copies of both, also a copy extended to four volumes. The library is also the possessor of the full set of the actual drawings by Thomas Stothard, R. A., for this edition, done in color (with the exception of the "Front View" of the fishing house; in its place there is an unpublished drawing), and for which he made a special expedition to Dovedale.

One of the scarcest and most difficult Walton's to obtain is the German translation of "Ephemera's" Edition (Edward Fitz Gibbon), by I. F. Schumacher, published by P. Salomon & Co., Hamburg, 1859, the only translation of the "Compleat Angler" into a foreign language. Most of the copies of this German edition were destroyed by fire, and the book was never reprinted. The owner was over fifteen years in obtaining a copy, and in twenty-five years has seen but five copies offered at auction, and of these five one was the same copy appearing twice.

The one hundreth edition of the "Compleat Angler" is the Lea and Dove edition published in London in 1888. It is in two large volumes, folio, and is the largest Walton issued up to the present time. The editor is R. B. Marston, the proprietor and editor of the "Fishing Gazette of London." He has given us the most carefully edited and scholarly edition of Walton thus far published, and the reader will find in his notes all of interest that has been discovered concerning Walton up to the date of publication. Alongside of this, you will find for the sake of comparison, "The Compleat Angler," published by Henry Frowde in London (1900). It is known as the "thumb edition," being $2 \times 1\frac{3}{4}$ inches in size. It is the smallest Walton known and also the smallest book in the collection.

In special or unique copies of Walton, the library has several worthy of note, one, a copy of the large paper second Bagster edition, 1815, extended or two volumes by the insertion of over one hundred and seventy old engravings, old portraits, colored views, sepia drawings, and colored drawings. The original drawings in sepia

are of portraits unattainable otherwise and are all from authentic sources. They were done especially for this copy by Mr. J. E. Wheeler, a celebrated "Punch" artist. The whole is a record of Izaak Walton, his haunts and friends. All his favorite authors are illustrated by contemporary and rare portraits. Most interesting is a copy of Elliot Stock's facsimile reprint of the first edition, London, 1896, with a preface by Richard Le Gallienne. This edition strangely enough is not mentioned in Wood's "Bibliography." The copy is unique, Le Gallienne's manuscript preface, with corrected proofs by Le Gallienne of the same, consisting of ten pages, being inserted and signed at the end; together with Le Gallienne's correspondence with Elliot Stock concerning this preface, eight highly interesting autograph letters, making arrangements, stipulating as to his fee, etc.

One of the handsomest editions of Walton is the "Winchester" edition, published in London in 1902, in two quarto volumes. It is edited by George A. B. Dewar, and has an essay by Sir Edward Grey, with etchings by William Strang and D. Y. Cameron. This copy has been extended to four volumes with specially printed title-pages and illustrated by the addition of one hundred and fourteen extra illustrations. The illustrations consist of the complete series of thirty-one original pen-and-ink drawings by Strang and Cameron which are reproduced in the book as head and tail pieces. (Drawings by these two artists are exceedingly rare, both being excellent etchers. Almost all their work has been done direct on the copper, without preliminary drawings.) Also an extra set of the thirty full-page etchings, proofs signed by the artist (unpublished thus), and complete set in proof state on India paper of the beautiful plates and vignettes to Pickering's 1836 edition of the "Angler" mentioned above. It is most sumptuously bound in dark green levant morocco, very richly tooled after an original design, and inlaid on the sides with various colored morocco representing conventional river flowers, bulrushes, water lilies floating on the water,

birds in the sky, etc., rich pictorial doubles inlaid in biscuit and other colored morocco showing scenes connected with Walton's life and "The Angler." Photographs of these doubles are inserted in each volume.

After the various editions of "The Angler" naturally come other books by Walton, or books concerning him and his works. A little 12mo. volume in original old brown calf, uncut, has on its title-page, the initials "I. W." and throughout the book are fifteen manuscript corrections and additions in the same precious autograph. It is a first edition of "The Life of Dr. Sanderson, by Izaak Walton, London, 1678," and was a presentation copy from him to "Jn. Merewether," whose autograph appears on the bottom margin of the title-page.

Walton wrote the preface to "Thelma and Clearchus," a pastoral romance by John Chalkhill, London, 1683. A new edition was published in 1820 by C. Whittingham. Following the preface are the verses of Tho. Flatman "To my worthy friend Mr. Izaak Walton on the publication of this poem." At end, in place of "finis" is a delightful touch: "And here the author died and I hope the reader will be sorry."

The first bibliography of "The Angler" was "The Chronicle of The Compleat Angler" by Thomas Westwood, London, 1864. The library owns two copies of this, one, the ordinary edition, the other, one of twenty-five copies printed on large paper. This was a presentation copy to Rev. H. N. Ellacombe, the author of "Shakespeare as an Angler," and has inserted two signed autograph letters to him from Westwood, a list of the various editions of Walton's "Lives," in his autograph, and a slip of "Errata."

A second edition of this was issued in 1883. Only two hundred copies were printed. It contained notes and additions by Thos. Satchell. This edition is very scarce though not generally known to be so. In a copy of "Twelve Sonnets and an Epilogue in memoriam, Izaak Walton, Obiit 15th, December, 1683," by T. Westwood (only twenty copies printed), presented to Elliot Stock,

the publisher, is inserted an autograph letter from Westwood to Stock, saying: "I send you the Chronicle. It is a finished book in two senses, for a fire at the printer's has destroyed almost the whole stock."

Another scarce item is "The Tercentenary of Izaak Walton, by Andrew Lang, Printed for Private Circulation only, London, 1893." "A delightfully written appreciation of 'The Father of Angling' written by a master's hand." Only thirty copies were printed. "The Bibliography of Izaak Walton's 'Compleat Angler,' by Thomas Satchell (printed for presentation only), London, 1882." A limited number were printed with special title-pages. The library possesses No. 3, a presentation copy to H. W. Bentley, and Thos. Satchell's own copy with his book plate. In 1900 Arnold Wood published a "Bibliography of 'The Compleat Angler' from the first edition in 1653 until the year 1900," beautifully gotten up, with eighty-six photoengraved reproductions of title-pages. Eighteen copies were issued on Imperial Japanese paper and one hundred and two on Van Gelder paper. Copies of each are in the collection.

Two very scarce pamphlets in the library are copies of the Catalog of Editions of "The Compleat Angler" exhibition at the Grolier Club in New York on the three hundredth anniversary of Walton's birth in 1893; and a "Finding list of an Exhibition of Waltoniana," at the Rowfant Club in Cleveland, in 1896.

Of equal scarcity is "A catalogue of an Exhibition of Waltoniana," given at the Club of Odd Volumes in Boston in 1912. Of this, only one hundred and thirty copies were printed from type at the Merrymount Press, Boston. This is entirely an exhibit of the treasures of this library.

Amongst the autographs in the collection the first place is easily held by a holograph document of Izaak Walton, eleven lines signed with his full signature, and dated, "Octo'r 23, 1676"; a beautiful example of Izaak Walton's handwriting and a very rare autograph, as he rarely signed his name in full. Another beautiful speci-

men is twenty-five lines in Walton's autograph signed "Iz. W.," being Sir Henry Wotton's ode to spring quoted in the "Compleat Angler." Charles Cotton is represented by three lines signed "C-C-Ton," a curious form of Cotton's signature.

Of much greater rarity than the above are seventeen lines signed "Robert Venables." The owner knows of no other example in a Waltonian Collection. Venables was the author of Part III of the fifth edition of "The Compleat Angler." Of great interest also in the original probate copy of Izaak Walton's will, dated August 9, 1683, beautifully written on a sheet of vellum, nearly three feet square and with the greater portion of the old seal still attached to it. This treasure mounted in a silver frame with glass front and back occupies a prominent place in the library. The owner had twenty-five facsimile copies made for distribution amongst friends; also twenty-five transcripts of the same in clear English print.

Many more examples of Waltoniana could be mentioned were there time and space to describe them.

The manuscript was the first portable form of transmission of men's thoughts, and in the library are manuscripts on pages of vellum containing perhaps the earliest mention of fish-ponds and the culture or raising of fish for food. The old monks who were often, if not the authors, most certainly the scribes of the manuscripts, had the liveliest kind of interest in fish and its culture, since on their many fast days, the church allowed them fish food.

The earliest manuscript in the collection is undoubtedly a copy of the work of Bartholomaeus Glanville, "*De proprietatibus rerum*"—concerning the nature of things. It was written in 1300. This portly volume was formerly owned by the University of the Sorbonne in Paris, and was loaned to the students and scholars of Paris for a stipulated sum of money per day. This was quite on the principal of the modern circulating library. The work is in Latin and was the encyclopaedia of the

middle ages. It contains one chapter on fish and fish-ponds. This is the earliest material on the subject in the library.

Of almost equal date is the manuscript of Pietro de Crescenze, "*Ruralium commodorum*," "of rural affairs." This work was produced repeatedly by all the early printers, and indeed, the earliest printed book in the collection, is the First Edition of Crescentius, printed by Johan Schuszler in 1471. Another early edition of the same work in the library is one printed in 1474 by the celebrated John of Westphalia, at Louvain, the beautiful old seat of learning in Belgium, only recently destroyed. This work was very popular in the Middle Ages and was translated into Italian, French and German, and a copy of each is in the collection. Crescenze wrote on fish-ponds and on how to make small ponds and inland lakes profitable. Books published before 1500 are known as "Incunabula," or "Books in their cradle." The library owns no less than fifteen of these specimens of the early bookmaker's art. First in value, naturally, comes the "Treatyse on the Art of Fysshing with an angle," from the "Book of St. Albans," by the legendary Dame Juliana Berners, and printed by the celebrated Wynkyn de Worde at Westminster, in 1496. This is the first book that treats of angling in the English language. The first printed book to contain an illustration of an angler using a float, was the "*Dyalogus Creaturarum Moralizatus*," printed at Gouda in 1480. The library contains copies of the 1482 and 1484 editions.

The earliest known treatise on fishing is a work in Flemish printed at Antwerp in 1492. A single copy only of this work is known to exist. It is in the library of Alfred Denison, who had a literal translation made of it and twenty-five copies printed for private distribution in 1872. The library possesses one of the twenty-five copies, also the original manuscript of the translation, together with the corrected proof sheets and revised proofs.

As regards fishing, probably the earliest mention of the subject in England occurs in "Magna Charta." The library owns a copy of this, published in 1556, which formerly belonged to Mary, Queen of Scots. It is in the original binding, showing the Tudor rose and crown. Books from Queen Mary's library are excessively rare, the late Queen Victoria even, never having been able to obtain one.

In 1651 was published a small volume called "The Art of Angling" by Thomas Barker. It is so scarce that this library does not own a copy. A reprint of it was published in 1820. Of this reprint 100 copies were issued, also four copies on straw colored paper and one on vellum. The library has one of the ordinary edition, two of the straw colored copies, and the vellum one. Anent this book and these copies, an interesting story, illustrating the smallness of the world, may be told. In one of the straw colored copies, which belonged to Thomas Gosden, the celebrated English XIX Century sportsman, bibliophile and binder of angling books, and was bound by him, is a note in his autograph: "There is also one reprint on vellum, which I have. T. Gosden." Is it not strange that after one hundred years these two little volumes should come together on one shelf, never again to be separated? This Barker was a cook, who, devoted to fishing, wrote his experiences. In his second edition, published in 1653, in the epistle dedicatory, he boasts of his skill and declares he takes as much pleasure in the dressing of fish as in the taking of them, "and to show how I can perform it, to furnish any Lord's table, onely with trouts, as it is furnished with flesh, for 16 to 20 dishes. And I have a desire to preserve their health (with help of God) to go dry in their boots and shoes in angling, for age taketh the pleasure from me."

The subject of fish cookery was one that occupied a good deal of attention in the old days when the church ruled the state and the eating of fish was compulsory upon rich and poor alike. Books of many pages have been written on the various methods of cooking one fish,

not to mention all fish and shell fish. One author, a Frenchman, describes 150 different methods of serving the sardine. Another, an American lady, has written five hundred pages on "how to cook fish," in which she gives "ninety-five ways to cook shad" alone. Two separate American authors or compilers have given us, "One hundred ways to prepare oysters." The lady mentioned above also wrote a book entitled, "How to cook shell fish," in which she gives "215 ways to cook oysters," "130 ways to cook clams," "175 ways to cook lobsters," "85 ways to cook crabs," 40 ways to cook shrimps," besides numerous other shell fish. This author at the end of 303 pages of recipes for cooking shell fish, says in a note: "P. S. This is all we know about shell fish. If we should ever learn any more, it will appear in another book." There are over 100 books in the library on fish cookery, the oldest being a very scarce edition of "*De Honesta Voluptate*" published in Bologna in 1499 which contains 13 pages on the "Cookery of Fish." The owner has made a collection of scrap books, now numbering over fifty, a single volume containing recipes for cooking one kind of fish. The volume on trout has been extended to two and contains over 300 different ways of serving trout, and is by no means finished yet!

Among these books on fish cookery in English, French, German and Italian, is one small curious volume entitled, "Fish for Cats, by Dog." It was published without place or date and is a collection of recipes from old cook books. The author, under the pseudonym of "Dog," says that he wishes to "alleviate, in the smallest measures, the agonies of Lent in 1868."

Perhaps a quotation from the introduction to "*A Handbook of Fish Cookery*," by Lucy H. Yates, London, 1897, may fitly end these remarks on fish cook books. "Ignorance * * * will generally be found to be the cause of the aversion which many housewives have to the cooking of fish * * * the poorer classes still regard fish as 'nothing to make a meal of' * * * and many people who would really enjoy eating it are

debarred from doing so by its being invariably badly cooked, or presented always in the same monotonous dress." The everlasting boil, broil, fry or bake, of the English and American cook, certainly makes one long for the delicate and tasty sauces and methods of preparing fish of our French and Italian cousins.

In 1758 there was published a book called "The Anglers." It was published anonymously, and consisted of eight dialogues in verse. This first edition is very scarce and even as far back as 1820 was so little known that the whole eight cantos were deliberately reprinted by Thos. O. Lathy without any acknowledgment whatever and called "The Angler." "This book is one of the worst cases of literary plagiarism known. It was palmed off on Gosden, the sporting bookseller, whose portrait by A. Cooper, R. A., is prefixed. He paid £30 for the copyright and also printed a single copy on vellum, at an expense of £10 for the vellum alone, as he himself states in a manuscript note to a sales catalog." Besides this copy on vellum, twenty copies were printed in quarto, in addition to the ordinary edition. The library owns the single copy on vellum, most expensively bound by Gosden himself and with his book plate and manuscript notes; also a copy of the quarto edition and of the ordinary one; also a copy of the original work of 1758. The original edition of 1758 has by now been exclusively attributed to Dr. Thomas Scott, a dissenting minister of Ipswich. The preface, entitled "The Bookseller to the Reader," contains a curious justification of angling, perhaps worth repeating: "To a man of any compass of thought and experience in the world it is well known that angling is not a mere recreation, but a business, a business which employeth most orders, professions and occupations among men. For instance, we booksellers angle for authors, and authors angle for a dinner or for fame. Again, doth not the lawyer angle for clients, the doctor for a fee, the divine for preferment, the statesman for secrets, the courtier for a pension, and the needy for a place? Further, what is he

who offereth a bribe, but a fisher for another man's conscience? And what is he who taketh a bribe but the silly fish that is caught with the bait?"

In the 17th Century in England, men's minds were much more turned to religion than in the present, and many books were written on common every-day subjects that were really religious works. Of this class of book, the scarcest is "A Booke of Angling or Fishing," by Dr. Samuel Gardiner, published in London, in 1606. Of this book, only three copies are known to exist, one in the Bodleian Library, one formerly in the Huth collection, recently dispersed at auction, and its final purchaser not known, and the third is in this library. The history of this copy has been impossible to trace. It was discovered by the buyer for a London bookseller in the west of England. With others of its kind, the majority of which are very scarce, it may be called "Fishing Spiritualized."

The English poets contain much of interest to the angler, as many have written in praise or description of the sport. Among the earliest is Michael Drayton, from whom indeed Walton may have obtained his idea of the colloquial form of the "Compleat Angler." In Drayton's 6th "Nymphal," the subject is a discussion between a woodman, a fisherman and a shepherd, each holding to the superior merits of his own vocation. Drayton's other poems contain many allusions to fish and fishing.

William Browne in his "Britannia's pastorals" writes so charmingly of the angler that one feels he must have loved the art himself.

Our friend, Charles Cotton, of sainted memory, wrote "Poems on several occasions" in 1689, which are filled with his favorite subject and friend, angling and Walton. John Gay in his "Rural Sports," 1713, comes well into our list. Thomas Heyrick is another who wrote frequently on the subject and in one of his poems, "A Pindaresque ode in praise of angling," he not only praises angling, but abuses in vehement fashion those who do not angle.

"Windsor Forest," a poem by Alexander Pope, first published in 1713, contains the well-known lines beginning "In genial spring * * *. The patient fisher takes his silent stand." James Thomson in his "The Seasons" has a passage of nearly fifty lines which shows the skill of the angler equally with that of the poet. Many were the lesser lights who burst forth into poetry in praise of angling, and there are also many Italian, a few French, a very few German, many Latin and a few Greek poems that bear directly on our subject.

The later and more modern classical authors have, many of them, been admirers of the art of angling and many also anglers themselves. The seventh part of Washington Irving's "Sketch Book" contains his delightful appreciation of the art, called "The Angler." The library possesses a copy of the first edition in the original seven parts with the original paper covers bound in and an autograph letter of Irving inserted.

Sir Walter Scott in 1821 wrote a preface and notes for a new edition of Richard Franck's "Northern Memoirs," which first appeared in 1694. In the library, by the side of this edition, rests Scott's original manuscript.

Another interesting manuscript, is one of thirty-nine pages, entitled "My First Trout," written by Charles Dudley Warner and dated May 6, 1897.

George Washington, himself, was a keen angler, and a little pamphlet by Dr. George H. Moore, entitled "Washington as an Angler," has been extra-illustrated for the library by the insertion of a manuscript inscription of presentation from the author, many portraits of Washington, and a fine autograph letter signed by George Washington. Our good President Grover Cleveland was a keen angler and fisherman. He wrote a very clever little brochure entitled, "A Defense of Fishermen." A very few copies of this were privately printed for distribution among the author's friends (not over twenty at most were issued). The library has a copy, presented by the author, with a charming autograph

letter to the owner, and signed by him, inserted. Other statesmen who were fishermen and who wrote on the subject were John Quincy Adams, De Witt Clinton and Daniel Webster. The latter was a noted trout fisherman, but his writings on the subject are entirely in the form of letters to various friends. The library owns the trout rod with which he was accustomed to whip the streams of Cape Cod in the latter years of his life. Andrew Lang, Weir Mitchell, and Dr. Van Dyke all loved the art, and presentation copies of the books they wrote are among the library's treasures.

The library is particularly rich in illustrated books, from what are probably the earliest known pictures of fish in the "Dyalogus," in 1480, mentioned above (the library has framed a woodcut, contemporaneously colored from a religious history of the world published several years earlier and said to be the earliest printed picture of fishing), to the most modern work of the illustrator and engraver of the 20th century. Among so many it is possible to mention but one or two. First, of course, would naturally come the water colors of Stothard mentioned above. Then perhaps comes Eleazar Albin's own copy of his work on "Esculent Fish," originally published in 1794, with 18 plates colored by hand. This copy has sixty full-page water color drawings by Albin. It was his evident intention, from the accompanying notes, to issue another volume, which, however, was never published, and these were the drawings he made for that purpose.

Mrs. Bowdich's "Fresh-water Fishes of Great Britain," London, 1828, a very rare and valuable work of which only fifty copies were issued, contains forty-seven plates of fish, drawn from life and colored by hand.

A copy of Elliot Stock's facsimile reprint of "Dame Barnes' Treatyse of Fysshing with an angle" belonged to Richard Doyle, and he began to illustrate it in color, but left it unfinished. The first few leaves have ten original, humorous and exceedingly clever illustrations in

color by Richard Doyle and many other illustrations sketched out in pencil. This interesting book was bought by Thomas Satchell in 1885 at an exhibition of illustrators work in Bond St., London, and contains his book plate, a receipt for 50 guineas which he paid for it and an insurance receipt for the same amount on the book while on exhibition.

"The Fly Fishers Guide," by Geo. C. Bainbridge, London, 1816, is the author's own copy and contains his book-plate. It is one of ten copies in quarto cloth which were issued for presents and colored with greater care.

Another work, of which the owner has never seen another copy, is "The Fishing Costume" of Hartlepool, London, 1819, a very scarce book with six most charmingly engraved and colored plates.

Speaking of "The Genteel Recreation or The Pleasure of Angling, a poem," by John Whitney, London, 1700, and reprinted in 1820, "Bibliotheca Piscatoria" says, "100 copies were reprinted, copies of it are rare. The original edition does not appear to have been published." The library owns a copy and there is another copy in the New York Public Library. The library owns a copy also of the 1820 reprint. At the sale of the Heckscher collection the only book that Bernard Quaritch, the famous bookseller of London, bid on, was: "Certaine experiments concerning fish and fruite: practiced by John Taverner, Gentleman," London, 1600. That copy is in the library and is the only one the owner knows of in this country.

Another volume that seems to have almost disappeared is the "Ichthyologia Ohiensis; or, natural history of the fishes inhabiting the River Ohio," Lexington, Kentucky, 1820. Of this book only eight copies are known to survive, one of which is in the library.

It would be possible to go on indefinitely, picking out books here and there that are unique or scarce, for it has been the policy of the library, whenever possible, to obtain a presentation copy of each book. Where that has not been possible, there have been inserted, when

they could be found, autograph letters by each author, together with any interesting newspaper clippings such as notices of the book, obituary notices of the author, etc.

As regards the books published during the last six or seven years, many of the authors have been kind enough, knowing the library by reputation, to send complimentary autographed copies to it. Only one author has refused to put his autograph in his own book when requested by the owner of the library. The majority have done more and have added some sentiment or complimentary remark regarding the library. The kindly gentleman who refused hated Americans and wrote the gentleman who sent him the book to be autographed for the owner, "that he considered it a * * * piece of American impudence to ask such a favor." He little appreciated that as many, if not more, copies of his book were being purchased by those * * * Americans, as by his own countrymen. In over twenty-five years of ardent collecting this is only the second case of churlish rudeness the owner has met with. The other, it is sad to state, was a fellow countryman from the middle West. Besides the books on the subjects of the library, there is a very large collection of books on whaling. In the early part of the nineteenth century New York lawyers argued long and earnestly on the subject, "Is the whale a fish?" Though we all know now that it is a mammal, the subject is so nearly allied, always being referred to as "The Whale Fishery," that a most interesting portion of the library is taken up with that subject. This comprises colored and plain prints, engravings and etchings, photographs and charts, besides several hundred volumes in different languages, together with a few manuscripts and many log books. Among the manuscripts may be mentioned the original of "The Journal of a Voyage to the Northern Whale-Fishery * * * made in 1822 in the Ship Baffin of Liverpool, by William Scoresby, Jr.," and an appendix, with interlineations and erasures, bound up with the title-page and text of the first edition, published in 1823. Inserted, also, is a clipping concerning the man-

uscript from a Boston paper, of contemporary date. The old log books are of particular interest. They were usually written by the captain of the whaler, who used a wooden rubber stamp depicting a whale, and if said whale was killed, the stamp appears lengthwise on the page and in a blank space on his side was written in the number of barrels of oil he tried out; but if he escaped, a stamp showing only his tail was used perpendicularly.

In conjunction with this whaling collection, there is a complete collection of all the lances, spades, bombs and guns used in the capture and chase of the whale; also a very fine collection of scrimshaw, as the etched and carved work done by the whalers on whale teeth, is called. Many teeth are beautifully engraved with whaling scenes, battle scenes of the war of 1812, portraits, etc. Three very valuable ones, charming in design and color, are the work of Edward G. Malbone, the celebrated miniature painter, done in his youth. They represent the heathen gods and goddesses. The remainder of the set the owner has never been able to trace. Included amongst this scrimshaw is a fine collection of buskbones as worn by our ancestresses, made from whale bone and ivory and beautifully engraved; also a large collection of jiggers or pie crust cutters, also made from whale ivory by the whalers.

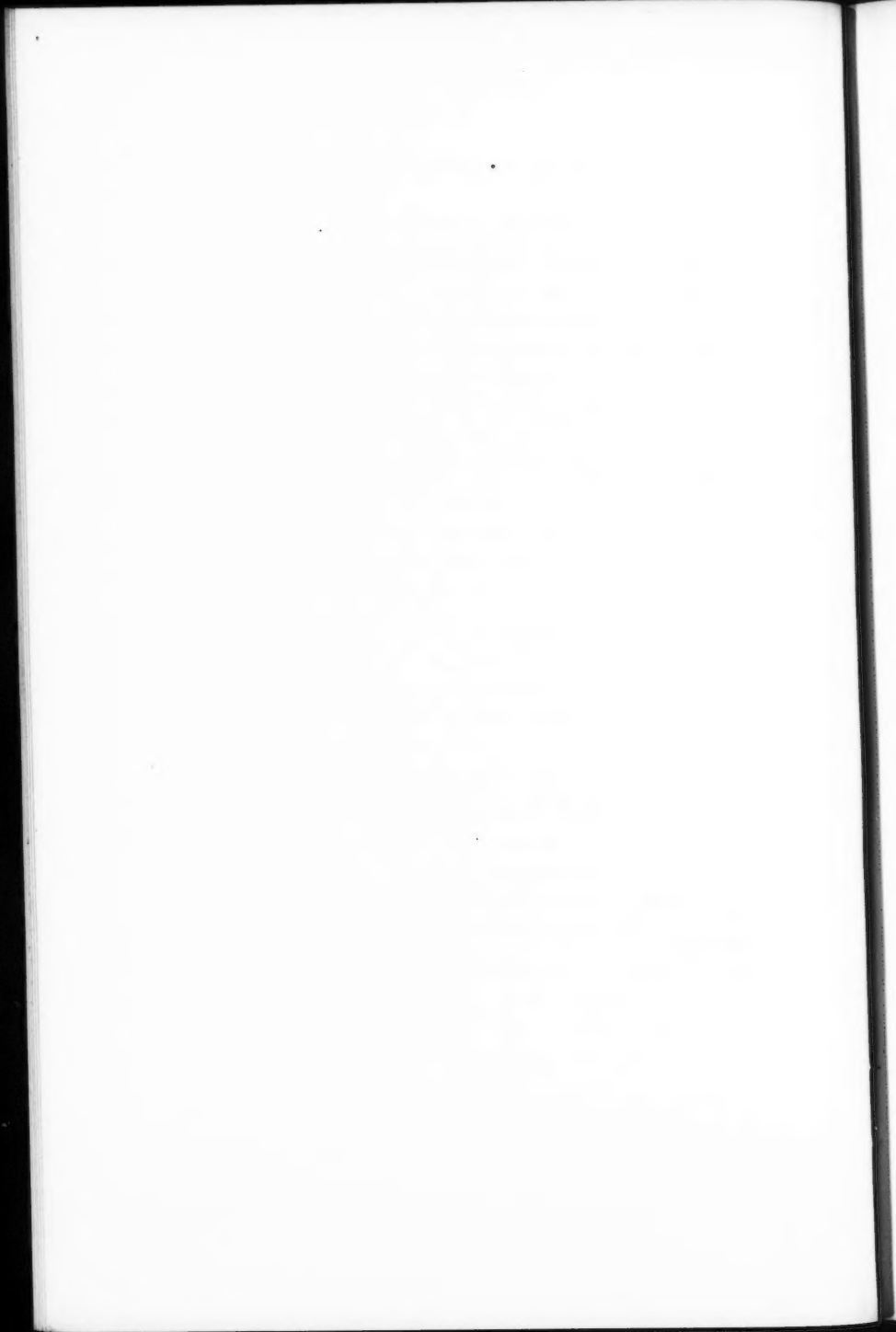
Another very interesting part of the collection consists of the prints, which number several thousand, all on the subject of angling or fishing, or containing persons angling or fishing. They date back from the earliest woodcuts to the latest work of the modern illustrator and engraver. There are many volumes of colored illustrations of fish alone, done by various artists in various lands, notably 246 examples done by a Chinese artist on rice paper and most artistically drawn and colored. The late Professor Agassiz told the owner he considered them the most beautiful examples of fish portraiture he had ever seen. As a companion to this is a book of Indian fishes drawn and colored by a native East Indian, but in no way so fine and noticeable.

The library contains probably a greater number of English "Acts" and French "Arrets" on the subject of "fisheries," together with Danish, Dutch, German, Italian, Norwegian and Swedish government acts and laws, with a few Russian, than any other single library. The library contains one superb example of the Finnish laws, in folio, each page engraved, print and borders of fish and game, made in 1709, with an English translation in manuscript on each opposite page done in 1720.

It contains a virtually complete set of the publications of the U. S. Bureau of Fisheries up to 1912, and almost complete sets of all the various state publications on the subject up to the same date. One interesting part of the library is the collection of illustrated post cards on angling, fishing, fisheries and fish, with many comic ones, amounting in all to nearly 5,000 examples, including a small volume of French ones, which play on the word "peche" and the verb "pecher," but which are not kept for general sight. Enough has been said, however, to bear out the motto painted over the fireplace in the library:

*"Whatever the wind, whatever the tide,
Here is good fishing by this fire-side."*

This motto was suggested to the owner after reading Eugene Field's delightful little essay on "Fender Fishing," in the "Love Affairs of a Bibliomaniac," and so, "To those who love quiet, virtue and angling—this for Farewell."



PROCEEDINGS OF THE FORTY-FIFTH ANNUAL MEETING

The Forty-fifth Annual Meeting of the Society was held at San Francisco, California, on September 1 to 4, 1915, in the Auditorium of the Young Women's Christian Association Building on the grounds of the Panama-Pacific International Exposition.

President Daniel B. Fearing called the meeting to order and introduced Hon. A. L. Cowell, and later Dr. B. W. Evermann and Mr. Ernest Schaeffle, all of whom made brief addresses of welcome.

ADDRESSES OF WELCOME.

BY A. L. COWELL,

*Assistant Director of Congresses, Panama-Pacific
International Exposition.*

Mr. Chairman and Gentlemen: I feel highly honored at being permitted to express, in behalf of the President and Board of Directors of the Exposition and particularly the Department of Congresses with which I am directly connected, our extreme gratification at being able to welcome you within the grounds of the Exposition to this, your Forty-fifth Annual Session. I feel especially glad because of the fact that you represent so old an organization and so important a subject. There are comparatively few of the conventions and congresses that are meeting in San Francisco and vicinity this year which have maintained an existence of forty-five consecutive years. Therefore, we feel that you bring to us a certain amount of dignity and stability, which we greatly appreciate. Of course, the subject in which you are interested is one of extreme importance to all the members of the human race.

At the opening of the Exposition, there were two important facts set forth. One was that, as the Exposition is celebrating a great achievement of American genius in our own time, the completion of the Panama Canal which is a work of the present, rather than the anniversary of some event which happened hundreds of years ago, the Exposition should be a contemporaneous one. None of the exhibits in these palaces are entitled to be the subjects of award by the Jury of Awards unless they have been made since the St. Louis Exposition of 1904. Therefore, the viewpoint of the Exposition is essentially of the present.

We have sought to gather in these exhibit palaces the material evidences of the progress of mankind within the last decade. But we thought, also, that the Exposition should bring together not only the actual material proofs of the progress of mankind, but that it should present to the world the methods by which that progress has been made possible. In order to emphasize those methods and particularly to emphasize the work of the organized movements that are so characteristic of modern development, we tried to bring together as large a representation from the different organized bodies of men and women as possible. The result is that more than nine hundred congresses, conferences and conventions are meeting in San Francisco and vicinity during the Exposition period and we are glad to claim those conventions as a part of the Exposition itself, setting forth to the world the methods and the spirit of the organizations which have made possible the progress shown in our exhibit palaces.

There is one other distinctive feature of our Exposition which we like to emphasize and that is, that we have made the central purpose of it the idea of human service. We have tried, in gathering these conventions, to emphasize those ideas which make for the betterment and improvement of the human race, and which contribute to the sum total of human happiness, and we believe that your work contributes materially to this

important end. We are therefore also glad to welcome you as an important factor in developing a great industry and a great branch of scientific knowledge, which is of the utmost importance to the human race.

Because of the importance of the industry which you represent, because of your long experience, and because of the fact that you bring to us a rich discussion of matters of vital importance to the human race and to the progress of mankind, we are especially glad to welcome you to this Exposition.

BY DR. BARTON W. EVERMANN,
Curator of the California Academy of Sciences, San Francisco, California.

Mr. President and Members of the Association: I do not know just what I should say on this occasion more than that those of us who live in San Francisco and California and on the western coast are very glad that the Society is meeting in San Francisco this year. I believe this is the first meeting that the Society ever has held west of Denver, and it is particularly appropriate and gratifying that the meeting this year should be held in San Francisco at the time of this wonderful Exposition. I wish it were possible for all the eastern members to have come to this meeting, not only because of the interest which the meeting would have for them, but for the opportunity of seeing California, the western coast, and this marvellously beautiful Exposition.

Those on this coast who are particularly interested in matters of this kind are, of course, primarily the State Fish and Game Commission and the various commercial interests of the State, and doubtless they extend to you a very hearty welcome.

The California Academy of Science has in its organization a few members who are interested in such matters also, and, of course, they are deeply glad that you are here this year.

I am sure that the meeting will prove valuable and will grow in interest as the days go on.

BY MR. ERNEST SCHAEFFLE,

Executive Officer of the California Fish and Game Commission, San Francisco, California.

Mr. Chairman and Gentlemen of the American Fisheries Society: The Fish and Game Commission of this State is very glad indeed that the Society has seen fit to meet in California this year. We have sometimes deplored the fact that meetings of an organization so important as this could not have been held oftener west of the Rockies. Like a great many other organizations and people out here in the West, we feel that we are a long way from "home," a long way from the seat of certain forms of activity. For that reason we have been glad to get the society here this year. We know that you will profit by your visit with us. We feel particularly certain that the results of our discussions here will be of benefit to the California Commission and to the fishing interests of the West. And, like the other good people who come out here to visit us, we feel sure now that we will not have to wait so long to see the members of the Society here again individually and collectively. We feel that you will want to have another convention farther west than the Rockies, probably here in San Francisco, or in California, within the next five or ten years.

So I would say to you that the Fish and Game Commission, which I have the honor to represent, is very glad to welcome you here, and we hope that you will have a good time while with us. If there is anything that the Commission and its representatives can do, while you are here, or after you return to your homes, to aid the Society or the members individually in any way, we shall be very glad to have you call upon us at any time.

PRESIDENT FEARING called for the election of new members as the first business of the meeting.

The names and addresses of the Patrons, Life and Active Members elected, have already been published in the December, 1915, number of the *TRANSACTIONS*.

REPORT OF THE RECORDING SECRETARY.*

To the Officers and Members of the American Fisheries Society:

Aside from the usual amount of correspondence, the chief duties of the Recording Secretary have been in connection with the publication of the Transactions. The change from an annual issue of one volume to the quarterly form, which all have noted, was authorized unanimously by the Council of the Society in November, 1914, and No. 1 of Volume 44 was issued in December.

The chief arguments in favor of the more frequent publication were, first, that the TRANSACTIONS would reach the members more frequently and thus have a greater influence in keeping awake their interest in the work of the Society, and second, that scientific papers could be issued without waiting for other matters, while the Proceedings of the Annual Meeting, the list of members, etc., would still appear about as early as formerly. In arranging material for publication, preference was given, as far as possible, to those papers read and discussed at the annual meeting.

The Secretary believes that the change is fully justified, as he has received many letters and other expressions of approval from the members and has yet to hear of a single objection.

Incidentally, the change to the quarterly form has made it possible to enter the TRANSACTIONS as *second-class mail matter*, thereby saving a considerable amount in postage. However, the extra cost of additional cover pages and envelopes and the work of addressing four sets of envelopes instead of one will consume a considerable part of what is saved in postage. It appears, then, that we have a quarterly journal at about the cost of our former annual volume.

In order that the TRANSACTIONS and other mail may reach the members promptly, the Secretary insists most emphatically that he should be informed at once of every

*In the absence of Dr. Osburn, this was read by President Fearing.

permanent change of address, a matter that is too often neglected.

The Index to the first forty volumes of the *TRANSACTIONS*, prepared by our President, has not yet been issued, as the finances of the Society have not warranted the expense. Moreover, certain additions to the text, suggested at the past meeting by Dr. T. S. Palmer, have not been completed, though they are under way. A plan is now under consideration to float the publication by subscription and it is believed that by this method the Index can be brought out the coming year without drawing on the funds of the Society.

There are now in the hands of the Recording Secretary numerous back numbers of the *TRANSACTIONS* of the Society for sale. From a former Corresponding Secretary of the Society there have been added to what was already in my hands, many volumes dating back from ten to twenty years ago. There is not a single copy of the 1903 volume in the hands of the Secretary, even for the Society's file, but, aside from this one year, full series as well as odd volumes can be supplied as far back as 1895.

The work of the Secretary has been carried on at a minimum of expense, the total amount being only \$21.62, included in the following items:

| | |
|---|---------|
| Postage | \$11.75 |
| Expressage | 6.77 |
| Notary's fees | .75 |
| Certified copies of the Articles of Incorporation | 2.35 |
| <hr/> | |
| Total | \$21.62 |

Since the last meeting twenty-four applications for active membership in the Society have been received and one active member, Mr. Geo. P. Slade, of New York City, has applied for life membership.

The Secretary would strongly recommend that an active campaign be undertaken at once to increase the membership of the Society. Many of the States,

especially in the South, have only one or two members, and in a few cases none at all. Of the twenty-two applications received during the year only two have been from southern states. This is quite disproportionate and something should be done to increase the membership, especially in that section. On going over the applications for the past several years the Secretary has been impressed by the fact that a large percentage of the applications has resulted from the activity of a few members. This is a fine showing for those so engaged and should be encouraged, but the sporadic activity of a few members can not be relied upon and is by no means sufficient for the growth of the Society.

Respectfully submitted,

RAYMOND C. OSBURN,
Recording Secretary.

New York, N. Y., August 21, 1915.

Moved and carried that the report be accepted and printed.

REPORT OF THE TREASURER.

The report of the Treasurer was called for and presented by Mr. C. W. Willard, the Treasurer of the Society.*

DR. B. W. EVERMANN: Mr. President, I have received word that Professor Chas. F. Holder of Pasadena, Calif., is ill and unable to be with us.

On motion by Professor Ward, the following telegram was sent to Professor Holder:

DR. CHARLES F. HOLDER,
475 Bellefontaine Street,
Pasadena, California.

The American Fisheries Society, assembled at San Francisco, for its forty-fifth annual convention, learns with deep regret of your indisposition. Your presence and counsel had been looked forward to with pleasurable anticipation. Your absence will be deeply felt. The Society extends its sincere wishes for your speedy and complete recovery.

AMERICAN FISHERIES SOCIETY.

*According to the minutes, the Report of the Treasurer was accepted and referred to the Auditing Committee, who found it correct. However, the report is missing and therefore cannot be printed.—Ed.

PRESIDENT FEARING: If you will permit me, I would like to say a very few words in regard to the attempt to increase the interest and the usefulness of this Society. Now, it seems to me a very useless thing that there should be so many societies with virtually the same interests, and I would like, before this meeting is over, to see the Pacific Fisheries Society and the American Fisheries Society become one. It has been tentatively suggested, that they should become a Pacific branch of this Society. I see no reason why the same interest should not be taken when we meet as we expect to, in the Southland, at our next meeting, and a southern division be created, and in course of time a middle-west division. That would cover the whole country; and instead of having organizations that are antagonistic to each other, they ought to work together instead of apart. I merely suggest this for you to think about, and perhaps talk about at some later time.

TREASURER WILLARD: Mr. President, I wish to suggest an amendment to our by-laws so that there may be a Membership Committee, consisting perhaps of the Secretary and Treasurer and one other of the Society, possibly the President, who shall have the power to elect members upon application. As it is now, if we receive an application in October, soon after this meeting is over, that person does not become a member until the following fall.

MR. WOODS: Mr. Chairman, I would like to be heard on the subject of increasing our membership. I would not allow any city to have a meeting of the American Fisheries Society unless they would promise a membership of one hundred or one hundred and fifty. For instance, if St. Louis were selected as a meeting place for the Society, it should be contingent upon St. Louis's bringing in one hundred or one hundred and fifty names for members. Any man who would work could do it. We should be larger and have more funds to conduct our work with.

This committee suggested by the Treasurer is a good idea, and is going a long way towards increasing our membership and the interest in our Society.

MR. WILLIAM ALLEN of Louisiana: Mr. President, I would like to state that the plan just mentioned by Mr. Woods was adopted last year by the Southern Educational Congress with great success. The committee came to my city after the convention in Chattanooga, to look over the ground preparatory to deciding whether the next convention would be held there or not. It probably will be held there. But one of the conditions outlined by the committee was the number of members to be secured by the city in a limited time before the convention is held. It has worked well with other societies and will work here.

PROFESSOR HENRY B. WARD: Mr. President, these are practical suggestions of the greatest possible value, and to put them into form for definite action before a meeting of the Society is too far advanced, I move you that this meeting request Mr. Willard and Mr. Woods to formulate and present in precise phraseology the by-laws necessary to carry into execution the proposals which they have made. (Seconded by Mr. Schaeffle.) Carried.

TREASURER WILLARD: Mr. Chairman, before adjourning, may I make the suggestion that a committee be appointed to have in view the amalgamation of the American Fisheries Society and the Pacific Coast Fisheries Society. It seems to me that if you appoint a committee they will see the different members and perhaps be better able to bring some concrete suggestions later on in the meeting.

MR. HENRY O'MALLEY, of Seattle, Washington: As the newly elected President of the Pacific Coast Fisheries Society, I would like to say a word on the matter of joining the two societies. We have a little society out here of one hundred and fifty members at the present time. I do not want the idea thrown out that we are seeking any assistance, because we are on a good firm

basis. Our constitution has been drawn along the same lines as that of the American Fisheries Society. Our objects are the same, and it is our intent to work in close harmony with the American Fisheries Society. The reason for our forming the Pacific Coast Society, primarily, was that there are a good many of us out here on this coast, our interests are here, we are a long ways from the body of the American Fisheries Society, and we do not get an opportunity to meet with them. Therefore, we formed our own little society of Pacific Coast members, and a good many of us belong also to the American Fisheries Society. I have belonged for a good many years myself, and still continue to have the same interest that I had before I was a member of the Pacific Coast Society. A good suggestion was made last night, that in issuing the quarterly, one number could be made a Pacific Coast number. Of course, I do not speak with authority from the Pacific Coast Fisheries Society, but I do know that this is a good idea, and I believe the Pacific Coast Society will probably look upon the matter with favor.

Moved and seconded that the President appoint two members representing each society to serve as a committee. Carried.

PRESIDENT FEARING: I will ask Dr. B. W. Evermann and Mr. Henry O'Malley to represent the Pacific Coast Fisheries Society and Mr. John P. Woods and Mr. Chas. W. Willard the American Fisheries Society on this committee.

Session adjourned.

Thursday, September 2, 1915.

President Fearing called the meeting to order and announced the appointment of the following committees:

FOR THIS MEETING.

Committee on Nominations: Mr. Henry O'Malley, Mr. Carlos Avery, and Mr. C. W. Willard.

Committee on Time and Place: Mr. Ernest Schaeffle, Mr. John M. Crampton, and Mr. F. W. Chambers.

Committee on Resolutions: Dr. Henry B. Ward and Mr. Henry Dean.

STANDING COMMITTEES.

Committee on Foreign Relations: Mr. George Shiras, Chairman, Dr. H. M. Smith, Dr. E. E. Prince, and Dr. George W. Field.

Committee on Relations with National and State Governments: Professor Henry B. Ward, Chairman, Mr. William C. Adams, Mr. M. L. Alexander, Mr. William L. Finley, and Mr. John W. Titcomb.

Committee on Publication: Prof. Bashford Dean, Mr. John T. Nichols, and Dr. Tarleton H. Bean.

VICE-PRESIDENTS OF DIVISIONS.

Fish Culture: Mr. Dwight Lydell, Comstock Park, Michigan.

Aquatic Biology and Physics: Professor Henry B. Ward, Urbana, Illinois.

Commercial Fishing: Captain J. F. Moser, San Francisco, California.

Angling: Mr. H. Wheeler Perce, Chicago, Illinois.

Protection and Legislation: Dr. T. S. Palmer, Washington, D. C.

These appointments are regularly made by the presiding officer and require no action by the Society.

MR. SCHAEFFLE: Mr. President and Gentlemen of the Society, I have the honor to announce that the Imperial Fisheries Bureau of Japan, through the Commission for the Exposition, has donated to the Society about one hundred catalogs of Japanese fisheries. I move that we extend a vote of thanks to the Japanese Imperial Fisheries Bureau for their courtesy.

Motion put and carried.

READING AND DISCUSSION OF PAPERS.

MR. W. O. BUCK, of Neosho, Mo., was called upon. His paper, *The Fish Farmer in Action*, has already been printed (TRANSACTIONS, Dec., 1915, pp. 46-47).

MR. JOHN P. WOODS, President of the Missouri State Fish Commission, presented an address on *Missouri Fish Heraldry*.

Most of Mr. Woods' remarks have been withdrawn from publication at his own request pending more complete studies. Briefly, the paper consisted of an outline of the work in fish culture carried on by the State of Missouri since the year 1879. The work began at that time with various species of indigenous fishes.

"Three of these have found special favor in very extensive cultivation in Missouri, viz.: Black bass (large mouth), crappie and sun perch (blue-gill sun-fish).

"Crappie are more delicate than the blue-gill (sun perch), but both are prolific breeders and contribute largely to the supply of food fish. One large lagoon in the St. Louis hatchery has been able for many years to fully supply the immense State demand for stocking with blue-gills, under the surprising conditions of no cultural care whatever, no artificial nesting, no assorting, no replenishment of breeders, no feeding, no attention, except prevention of poaching, and even under the handicap of the constant agitation of the water produced by public boating.

"The question of black bass cultivation has annually taken much of the time of this Society, but a majority decision has not yet been reached. The primary objection to this fish has been that of its intense greediness, to the extent of cannibalism. In such aggressive feeding, however, the growth of those that survive is facilitated. The State of Missouri long ago undertook to produce black bass in its hatchery waters and has been successful to the extent that it has been able to completely supply the demand in sizes ranging from advanced fry to fingerlings, and yet let the cannibals work.

"Plainly it would appear that to partly rear this species successfully on a large scale in hatchery waters, it is necessary to hatch a great many more than there is urgent need of. Of course, feeding and occasional sorting of sizes will increase the output, and such practice is recommended. Patience, suitable water and sufficient pond area are all that is needed for a satisfactory output. The success of Missouri in this particular respect dates back a number of years, but the results have not been made public."

Mr. Woods showed a number of bottled specimens illustrating the rate of growth of the large-mouth black bass.

The demonstration was followed by active discussion on the part of a number of the members.

SOME QUANTITATIVE PHYSIOLOGICAL CHANGES IN THE PACIFIC SALMON DURING THE RUN TO THE SPAWNING GROUNDS.

BY PROFESSOR C. W. GREENE,

Laboratory of Physiology, University of Missouri

(see TRANSACTIONS, Dec., 1915, pages 5-12.)

In the absence of Professor Greene, this paper was read by Dr. B. W. Evermann. In the discussion that followed the question was first raised whether the death of the Pacific salmon is due to loss of energy.

DR. EVERMANN: In 1895, and again in 1896, I carried on experiments on Snow River, Idaho, for the two entire seasons, to determine whether the salmon actually died after spawning. We were situated so that we could examine closely every one of several hundred salmon that came to that region. Each of those seasons, not one of those salmon showed any scars or bruises upon arrival at the spawning grounds. They had done no fighting on the way up. When they got on the spawning ground, fighting to some extent and rubbing over the gravel in the beds resulted in some injuries of various sorts, but all of those injuries were received on the spawning grounds. But, although there were no marked changes in the external appearance of the fish from the time it left salt water until it arrived on the spawning grounds, there had been marked change in the muscles and different tissues of the body.

MR. HENRY O'MALLEY, of Washington: In the waters about Puget Sound, we find the humpback and dog salmon spawning at no great distance up the rivers. In fact, a great many dog salmon spawn in brackish water and run out into salt water, just the same as the others.

MR. E. W. COBB, of Minnesota: We have heard considerable about the great results obtained from the introduction of salmon into the fresh water lakes of the east. Do all of these die in the same way?

MR. GEO. H. GRAHAM, of Massachusetts: Mr. President, I feel that we have not experimented long enough with these fish to answer the question fully. The Chinook salmon were introduced into Lake Sunapee in 1904. The eggs were hatched out and the fry planted when small, during the summer, when the lake was alive with black bass. I believe very few of those salmon lived, but in three or four years, they began to catch them, weighing up to six and eight pounds. About 1909 or 1910, another lot was planted in the fall after the bass had gone into winter quarters. The next year two thousand were caught, and the year after that five thousand. Several specimens weighing fourteen to sixteen pounds and one between eighteen and twenty pounds have been taken.

There have been several reports of single dead salmon taken in Lake Sunapee. I think this is to be accounted for by fish breaking away in an injured condition from anglers. I maintain that if all died after they became mature, we should find hundreds of these salmon around the lake every season.

Now, as to rate of growth, the Massachusetts Commission, in 1912, planted ten thousand of these salmon in Lake Quinsigamond, near Worcester, with a screen at the outlet. Eighteen months from the time those fish were planted, we began to catch them, and six to eight hundred salmon were taken, running from a pound and a half up to five pounds. That was all gained in eighteen months, for there were no salmon there before. Two hundred were taken the first day of the open season this year, 1915. We intend to experiment with these fish, because we know when they were planted, and we believe that we will find out in three or four years just what these fish are doing in fresh water. We know already that they have been very successful from the standpoint of the sportsman. They grow rapidly, they are fine fish to eat, and there is no more gamey fish in the whole country. We can see very little difference between the chinook salmon in fresh water lakes and the Atlantic salmon or Sebago salmon.

MR. HENRY O'MALLEY, of Washington: Some years ago I took five hundred fingerlings of the chinook salmon and was curious to know what would become of them if held in the same water that the adult salmon naturally frequented for spawning. The fish were held in a pond and a large percentage of the males became mature as yearlings. The milt was used with perfect success to fertilize eggs from river salmon. These young matured salmon died in the pond. Some died at the end of the second year and the balance were nearly gone at the end of the third year. None of them lived to be four years old.

MR. GRAHAM: A year ago at Lake Sunapee, N. H., I found one male salmon, weighing five and a half pounds. As the milt was coming out of the fish, I shipped it to Dr. Tarleton H. Bean, who examined it and found it to be a mature fish three years old.

EFFORTS TO RIPEN STRIPED BASS, 1915

BY MR. J. P. SNYDER, CAPE VINCENT, N. Y.

(see TRANSACTIONS, December, 1915, pages 40-45.)

Read by President Fearing.

PRESIDENT FEARING: The greatest results that have ever been obtained in the history of the world in the introduction of fish into waters absolutely foreign to them, have been those following the introduction of the striped bass and the shad into the waters of California. This was done by the United States Fish Commission in 1879 and 1880. The men, instrumental in the work, were all members of this Society, and had the backing of the American Fisheries Society, so it is mainly due to this Society that California rejoices today in the abundance of these fishes.

It may be news to some of the members of the Society, even some of the California members, that there were only one hundred and thirty-five striped bass, and the biggest one weighed only half a pound. They were distributed in Suisun Bay, in 1879, and in 1882 there was a further shipment of about three hundred, none of them longer than nine inches. There was a closed law on them for a number of years, but in 1901, there were over a million pounds of striped bass sold in San Francisco alone. Mr. Schaeffle tells me that there is a record of a fish taken in California that weighed one hundred pounds, which gives us a little data as to the rate of growth of the striped bass. I may tell you that the greatest weight of the striped bass, according to absolutely authenticated record, on the Atlantic Coast, is but one hundred and twelve pounds, and you have already caught a fish of one hundred pounds here on the Pacific Coast. You owe that to your magnificent conservation. You have a close season for your fish, and a law that forbids the exportation out of the State. In the Atlantic States, there is no law against taking them when breeding. I have seen, myself, in Fulton Market, New York City, a female bass that weighed ninety-eight pounds, and had thirty-six pounds of spawn in her. That is the way to destroy food fish. You, here in California, have locked the stable door before the horse was stolen. It would be well if all our states would do the same.

MR. J. MAILLIARD, of California: May I say something about the shad that you spoke of being introduced here? I do not think the people in California realize the number of shad there are in this State. They do not seem to be in the market, for some reason, although they are one of the finest fishes we have. The shad commence to run about the beginning of April, and continue until in June. There is no law, whatever, against catching them. They are taken with dip nets. Thousands and thousands of pounds of shad are caught along these rivers. The shad are so common they feed them to the chickens. They are the most prolific fish we have here, and I am sorry to say, are hardly appreciated, but the way they have increased is something wonderful.

MR. N. B. SCOFIELD, of California: The State of California did try, for four different years, to propagate the striped bass. The striped bass unfortunately changed its habits about the time the Commission

started to experiment with them. I do not know what was the reason, unless the bass had not become well established in its habits, at the time the propagation was decided upon. Nearly all of the mature or spawn bass were coming from the neighborhood of Bouldin Island, on the San Joaquin River. The fishermen caught large numbers of these spawn bass, a great many of which appeared to be in a ripe condition, so a hatchery was established there. The first season they had very remarkable success and hatched several million fry. But after that year the bass got fewer and fewer at San Joaquin, and started to run at spawning time up the Sacramento. This still continues, very few going up the San Joaquin at the present time. In all the work that has been done, we have never discovered the spawning places of the striped bass in either the San Joaquin or the Sacramento River.

MR. SCHAEFFLE, of California: Mr. President, I would like to add a couple of practical comments relative to striped bass. This is now one of the three most important fishes in California. I rather take issue with our President when he says that we do not appreciate the striped bass, because I think the people do appreciate it very well; in fact, the people of the west, a few years ago decided to shut down the bars, and keep them home. Every state in the west—I do not know how far east—was drawing on us for their striped bass. In addition to the non-export law that we have had, I think about six years, we have had closed seasons. We have had a closed season of Saturday and Sunday on striped bass, shad and salmon for a great many years. As an experiment, a few years ago, a closed season was made in the spring, during what was then supposed to be the spawning season of the striped bass. That law would have worked splendidly, but unfortunately, with the run of spawning bass in the spring, we have a run of salmon and a run of shad. The fish are caught in the same net. The law intended to protect one is inoperative, because in fishing for one of the other varieties, striped bass are caught and killed. That law was taken off at that time, and at the last session of the legislature, a law was introduced, but not passed, to make a closed season in the spring on salmon.

We have also had a number of other laws for the protection of the striped bass. We limit the size of mesh that can be used for taking the bass, with the idea of protecting the small fish under spawning size.

We regulate the kinds of nets that can be used for taking bass. For a great many years we have not allowed the set net. We have no traps in the waters. We have a law now that prohibits even the use of small mesh nets, that may be hauled on the beaches. This last legislature passed a very radical act at the recommendation of Mr. Scofield, of the Fish and Game Commission, under which the small sloughs and probable breeding grounds of the striped bass will be kept absolutely free from all kinds of nets. The main waters, say, in the main Sacramento and San Joaquin Rivers, are open to the fishermen with nets. The side sloughs on the main portions of the river are closed. We feel that this will protect the spawning beds, and the young fish after they leave the spawning beds, and as they work down into the bays. I would like to say to that, in addition to having all these laws, the Commission has strenuously endeavored, for a great many years, to see that every one of these laws is religiously observed. We maintain

a constant patrol of the waters in which the striped bass are found and taken by the fishermen. We have one large boat on the main bays here, and two boats on the Sacramento and San Joaquin Rivers, and we add to them at times. We also detail our field men or game wardens, to spend quite a lot of time along the streams. We have arrested hundreds of fishermen for violating these laws because fishermen do not always have our viewpoint. They think if the fish is in the water, it ought to be killed. We have had deputies killed in the effort to enforce these laws, but I think the laws we have at the present time are wisely framed and they are being more and more closely observed and rigidly enforced all the time by the Commission.

Mr. Mailliard referred to the fact that the shad are not appreciated in the State, although at times out in the country the people seem to be wiser. The shad is not appreciated, so it is taken in large quantities at times when there is no demand for them and dumped on the market. Great quantities are salted and shipped to China. We are not making good use of the shad. The Commission has endeavored to popularize this fish, but has had little success. We have endeavored to convince our people on the coast that our shad is just about as good, if not as good, as the eastern shad, but for some reason, in the past at least, the public has not taken to the fish. We hope to bring about a condition, though, in the near future, when the shad will be appreciated just as the carp is going to be appreciated.

WHAT WE CAN DO TO PROMOTE FISH CONSERVATION.

BY CHARLES MINOR BLACKFORD, M.D., STAUNTON, VA.

(see TRANSACTIONS, December, 1915, pages 13-18).

Read by President Fearing.

Following the reading of this there was a prolonged discussion as to the possibilities of broadening the scope of the TRANSACTIONS so as to admit of the publication of short notes and news items, which was approved. The quarterly publication, instead of the former annual volume was considered a move in the right direction. Also the plan of admitting papers for publication at any time, without the formality of presenting them previously at an annual meeting, was considered favorably.

Session adjourned.

Friday, September 3, 1915.

PRESIDENT FEARING: Gentlemen, I wish to state that there is a report from Mr. H. Wheeler Perce, Chairman of the Publicity Committee, which did not reach me until

this morning, and also a very short paper by Mr. Perce on "The Relations of Commercial and Sport Fishing—Fair Play." With your permission, before we proceed to business, I will read his report as chairman of the Publicity Committee.

To the Members of the American Fisheries Society:

Permit me, as Chairman of the Publicity Committee to report simply some general progress and to say that I still feel like reiterating the suggestions made at earlier meetings. I have still further reason to believe that a "whirlwind campaign" for members, by means of widely distributed invitations, would prove successful to a very gratifying degree. In line with this, let me state, that with the assistance of Mr. Merrill, I could furnish the Society with approximately 3,000 names, all more or less desirable prospects for membership in the Society. Surely, similar lists could be obtained from some source in all the states.

Again let me urge the advisability of a magazine owned by the Society and circulated among its members only, in the same manner as the National Geographic Magazine.

The formation of State Chapters of the Society surely would prove a great advantage. There is an illustration of this in the formation of that splendid, new association of Pacific Fisheries, which probably could be to all intents and purposes, a portion of the American Fisheries Society.

I have every reason to believe that a National organization of at least 10,000 could be built up, if some modifications of this general scheme were adopted and I think the Society could be made into a popular one, without any danger to its present splendid standard of ethics and scope and type of work.

Respectfully submitted,

H. WHEELER PERCE,
Chairman Publicity Committee.

THE RELATIONS OF COMMERCIAL AND SPORT FISHING—
FAIR PLAY.

BY MR. H. WHEELER PERCE, *Chicago, Ill.*
(see TRANSACTIONS, December, 1915, pages 29-33.)
Read by PRESIDENT FEARING.

Owing the lack of time the following papers were read by title:

MORE ABOUT THE PADDLE-FISH (*Polyodon spathula*)
COMMONLY CALLED THE SPOON-BILLED CAT

BY M. L. ALEXANDER,
President, Conservation Commission of Louisiana,
New Orleans, La.
(See TRANSACTIONS, December, 1915, pp. 34-39)

FISH PARASITES AND THE PUBLIC HEALTH.

PROFESSOR EDWIN LINTON,

*Washington and Jefferson College, Washington,
Pennsylvania.*

(see TRANSACTIONS, December, 1915, pages 19-28.)

Mr. Geo. H. Graham of Springfield, Mass., President of the National Association of Fish and Game Commissioners, extended an invitation to the members to be present at the meeting of this organization on the following week and to participate in the excursion to the California State Game Farm at Hayward.

This was warmly seconded by Mr. Ernest Schaeffle, Executive Officer of the California Fish and Game Commission.

A motion was made that a committee be appointed to meet a delegation from the Association of Pacific Fisheries on their arrival at Oakland at six o'clock. The motion was carried and Mr. Schaeffle was asked to select the committee.

REPORT OF THE COMMITTEE ON TIME AND PLACE.

Presented by the chairman of the committee, Mr. Ernest Schaeffle, of San Francisco.

Mr. President and Gentlemen: The Committee on Time and Place have duly considered courteous invitations to hold the 1916 meeting of the Society in Baltimore, New Orleans, Columbus, New York City, Buffalo, St. Paul, Washington, D. C., and Boston. It is the judgment of the Committee that the 1916 meeting for peculiar reasons, very satisfactory to the committee, be held at New Orleans on October 16, 17, 18 and 19, 1916.

We are very glad to report to the Society that Mr. Allen, representing the Conservation Commission of Louisiana, has promised to add one hundred and fifty new members to the Society in advance of and at the time of the 1916 meeting.

MR. JOHN P. WOODS of Missouri: I move, Mr. Chairman, that the report be approved.

Seconded by Mr. Carlos Avery of Minnesota.

The motion was put and carried.

MR. WM. ALLEN of Louisiana: On behalf of the Conservation Commission of the State of Louisiana, and of those who joined in extending the invitation to this Society to meet there next year, I wish to express my pleasure that it has been accepted. I can assure you we will do everything we can to make a great big successful meeting of it.

PRESIDENT FEARING: We are now ready to consider the most important matter that has come up at this meeting, the possibility of amalgamation with this Society of the young strong Fisheries Society of the Pacific Coast.

REPORT OF THE COMMITTEE ON THE AMALGAMATION OF
THE PACIFIC COAST FISHERIES ASSOCIATION
WITH THE AMERICAN FISHERIES
SOCIETY.

Presented by DR. BARTON W. EVERMANN, *Chairman*.

Mr. President and Members of the Society: Your committee has held two rather informal meetings, and has discussed in a very informal way the question that was delegated to it. I think all the members of the committee are agreed that good will come to the Pacific Fisheries Society and to the American Fisheries Society, both, if some sort of amalgamation or closer affiliation could be established, and all the members of the committee feel that it is desirable to adopt an amendment to the constitution and the by-laws, which would provide for such affiliation. There has been drawn up a draft of an amendment to the constitution, which would go in probably as a by-law, in these words:

WHEREAS, an enlargement in the scope and work of the Society is desirable,

Be it resolved, That when organizations as a body, of interests similar to those of this Society, desire to obtain membership in the Society, that, upon the indication of such desire being formally presented, such applications shall be duly considered in the annual meetings of this Society; such admissions to be on terms mutually agreed upon.

The words "chairman" and "recorder" are suggested as suitable words for the leading officers of the section, so that there will be no confusion. The president or secretary will be of the American Fisheries Society, while we would speak of the chairman of the section, or the recorder of the section. It was thought that the sections might hold meetings other than annual meetings, and that the dates and places and all the details concerning those meetings, other than the annual meetings, should be left entirely in the hands of the section. The annual meeting of the section, however, should be approved by the American Fisheries Society, so as to prevent conflicts in the meeting of two or more sections. The dues, of course, would be the same in all sections of the Society, and one clause provides that an amount not to exceed one-half of the dues may be retained by the section for its local expenses, that one-half will go to the general society; but all the funds will be handled by the treasurer of the American Fisheries Society.

In order to get that amendment properly before the Society, this resolution has been drafted as a by-law and is submitted:

BY-LAW.

On presentation of a formal written petition signed by one hundred or more members, the Executive Committee of the American Fisheries Society may approve the formation in any region of a Section of the American Fisheries Society to be known as the — Section.

Such a Section may organize by electing its own officers, and by adopting such rules as are not in conflict with the Constitution and By-Laws of the American Fisheries Society.

It may hold meetings and otherwise advance the general interests of the Society, except that the time and place of its annual meeting must receive the approval of the Executive Committee of the American Fisheries Society, and that without specific vote of the American Fisheries Society, the Section shall not commit itself to any expression of public policy on fishing matters.

It may further incur indebtedness to an amount necessary for the conduct of its work not to exceed one-half of the sum received in annual dues from members of said section.

Such bills duly approved by the Chairman and Recorder of the Section shall be paid on presentation to the Treasury of the American Fisheries Society.

After some further explanation by members of the committee, it was voted to accept the report of the committee.

Mr. Woods of Missouri moved, seconded by Prof. H. B. Ward, that the resolutions embodied in the report of the committee be adopted as by-laws, under Article II of the Constitution. Carried.

PROFESSOR H. B. WARD of Illinois: I feel that the occasion is ripe for the entering of another item on our minutes, and for taking another step towards the amalgamation of these two societies, concerning which so much has been spoken. It seems to me fitting and proper that our present President, who has done so much to bring about this thing that we all think will be a great step in advance, be requested by this meeting to write a letter to the Pacific Coast Fisheries Society, expressing the desire of the American Fisheries Society that they should be joined with us in the work in which we are mutually interested, and calling their attention to the fact that the present regulations of this Society provide for the continuance of their work, even though they become a part of our organization. I, therefore, move that this meeting instruct President Fearing to communicate officially with the Pacific Coast Fisheries Society, to that effect.

Motion carried.

PRESIDENT FEARING: Is the committee appointed to draft the by-law in regard to election of members ready to report?

Mr. Woods of Missouri, Chairman of the committee, presented the following:

BY-LAW

The President, Recording Secretary and Treasurer of the Society are hereby authorized, during the time intervening between annual meetings, to act on all individual applications for membership in the Society, a majority vote of the Committee to elect or reject such applications as may be duly made.

Moved and seconded and duly carried to incorporate this as a by-law under Article II of the Constitution.

COMMITTEE ON RESOLUTIONS.

Professor H. B. Ward, as Chairman, presented an informal report embodying expressions of regret at the loss by death of members whose names appear on another page. Also the thanks of the Society were tendered to members of the local committee and to the Young Women's Christian Association in whose hall the meetings were held.

The report of the committee was accepted.

PRESENTATION OF A BRONZE MEDAL TO THE AMERICAN
FISHERIES SOCIETY BY THE PANAMA-PACIFIC
INTERNATIONAL EXPOSITION.

BY HON. C. S. SCOTT, *of the Board of Commissioners of
the Panama-Pacific International Exposition.*

Mr. President and Gentlemen: It affords me great pleasure to represent the President and the Board of Directors on this occasion, and to extend to you their greeting and welcome here within our midst. We want you to feel that you are at home, and we are simply extending officially a greeting and welcome.

In commemoration of your meeting here with us, and of this day, and on behalf of the Exposition and the Directors, and President Moore, I take great pleasure in presenting to you a medal, made of bronze, on which is inscribed: "The American Fisheries Society, Forty-fifth Annual Meeting, September 3, 1915." On the reverse side: "In Commemoration Panama-Pacific International Exposition, San Francisco." While this has no intrinsic value, it carries with it the best wishes that we can extend, in words or otherwise, for the future success of your organization.

President Fearing responded, expressing the thanks of the Society to the officers of the Exposition for their greeting and for the gift of the medal. The medal was placed in the hands of the Recording Secretary for preservation.

TREASURER WILLARD: Mr. President, in order to bring to a focus our informal discussion concerning the increase in our membership list and change in the TRANSACTIONS, I wish to offer the following:

Resolved, That a committee be appointed, consisting of Mr. Daniel B. Fearing of Rhode Island, Mr. H. Wheeler Perce of Illinois, Dr. Chas. Minor Blackford of Virginia, Dr. Raymond C. Osburn of Connecticut, and Dr. Barton W. Evermann of California, whose duty shall be to consider and put into operation some plan to increase the membership, and to consider and adopt methods to increase the efficiency of the publications of the American Fisheries Society.

Being duly seconded by Mr. O'Malley of Washington the motion was put to vote and carried.

REPORT OF THE COMMITTEE ON NOMINATIONS.

Mr. Henry O'Malley, chairman of the committee, presented the following nominations for the elective officers of the Society for the year 1915-16:

PRESIDENT: Prof. Jacob Reighard, University of Michigan, Ann Arbor, Mich.

VICE-PRESIDENT: Dr. Geo. W. Field, Massachusetts Fish and Game Commissioner, Sharon, Mass.

RECORDING SECRETARY: Prof. Raymond C. Osburn, Connecticut College for Women, New London, Conn.

CORRESPONDING SECRETARY: Dr. Chas. H. Townsend, New York Aquarium, New York City.

TREASURER: Mr. Chas W. Willard, Rhode Island Commission of Inland Fisheries and Game, Westerly, R. I.

EXECUTIVE COMMITTEE.

Henry O'Malley, Seattle, Wash., *Chairman*; H. Wheeler Perce, Chicago, Ill.; N. R. Buller, Harrisburg, Pa.; J. Quincy Ward, Frankfort, Ky.; Ernest Schaeffle, San Francisco, Calif.; John P. Woods, St. Louis, Mo.; Eben W. Cobb, St. Paul, Minn.

A motion was passed that the Secretary cast one ballot for the entire list, which, being done, the officers for 1915-16 were declared elected.

Professor H. B. Ward proposed a vote of thanks to President Fearing and the other officers of the Society for their efficient work during the past year. Carried.

President Fearing then introduced Hon. Charles A. Vogelsang, former Chief Deputy of the California Fish and Game Commission, and Member of the Board of Directors of the Panama-Pacific International Exposition, who addressed the meeting.

ADDRESS OF MR. VOGELSANG.

"Mr. Chairman and Gentlemen: I have to ask your indulgence for appearing somewhat late, because I happened to be at another meeting. But I am nevertheless very glad to be here and meet you gentlemen who have to deal with one of the great economic problems not only in all the States of the country, but of the world. You have chosen to come here to California, to this Exposition which happens to be, in this year of 1915, the meeting ground of the nations of the world. In sharp contrast to things that are occurring elsewhere, San Francisco has this unique distinction: It is the one great peace capital of the world, where men from all nations are sitting down in friendly intercourse, exchanging ideas, giving from each country, and each state, that which makes for the general betterment of mankind.

"The Exposition, after all, is simply the tearing down of that sort of imaginary fence that stood between you and your neighbor. You would hear his talk; you would know something about what he was doing, but he was over there somewhere, and you wondered what sort of a peculiar fellow he might be. When that fence was removed, you would say, 'Why, he is quite the same as ourselves. He was born, perhaps, in a little different atmosphere, reared under a somewhat different environment, his training might have been different, but his hope and his desire is for the betterment of his fellow-men.' It has been my opportunity, and I appreciate very much the great opportunity I have had, to come into close contact with men from every part of the civilized

world, and I find that while we differ somewhat in the methods of approaching things, sometimes in medicine, sometimes law, sometimes religion, that after all we are all heading for one common goal, the betterment of the race and the world in which we live.

"The year 1915 is fraught with more far-reaching and important events than any other year since the Christian Era began. Empires and kingdoms and principalities may change, but human nature always is the same. But whatever may be the world changes in the future, you have come here to this wonderful peace capital, where all is peace, harmony, beauty, and where you can exchange a hand-clasp and a smile with your brother, whether he comes from Patagonia or from the very northernmost lands, or from east or west, and we are all friends, working for the common good and with a common high purpose.

"On behalf of the Exposition and its representatives, I want to say to you, in the language of the old Spaniard from whom we have many beautiful things to remember: 'My house is your home.' Therefore, you are most welcome to our house."

President Fearing introduced the eminent ichthyologist, Dr. David Starr Jordan, Chancellor of the Leland Stanford University.

ADDRESS OF DR. JORDAN.

"*Mr. President, Ladies and Gentlemen:* I used to be a fisherman, and according to Isaac Walton it is good enough for any man to be on the right side of a man who knows fish. And I used to know fish at one time, and have always been interested in the problem of what would become of a man if he fell into a fish trap with several tons of salmon in the trap, whether he would swim on the backs of the fishes, or sink like a lead bullet to the bottom. I am much interested to know the solution of this problem, but have never felt personally like experimenting.

"I have been much interested in Dr. C. H. Gilbert's work on salmon, for the last two or three years, in finding that the age of salmon can be told by the concentric rings of the scales, just as you know the age of a tree by the rings in the wood. There are a good many of these rings in a year, but in the winter, when food is scarce, it appears that the salmon does not grow so rapidly, and the rings are close together; in the summer, when conditions are favorable for the growth of fish, the rings are farther apart, so that by noticing the number of spaces where the rings are wide apart, it is possible to tell the age of the salmon.

"The ordinary red salmon of Alaska grows usually to be four years old before it spawns. However, it sometimes spawns under age, and sometimes it goes beyond the four years. The king salmon spawns usually when it is four years old, but sometimes it runs on to five or six, and sometimes it spawns as young as one, or possibly two years. All these are reported in the scale, so that if you figure it out, you can find out from the fish all its history.

"In the habits of the salmon there are many unsettled problems, but one among the most remarkable things of natural history is, that the red or sockeye salmon, which is more abundant than all other salmon in the world put together, never spawn excepting in the water above a lake, and whether the stream running into the sea is a very short one, or whether it is a river like the Yukon, where they must run eighteen hundred miles before they come to a lake, in either case they go up a stream that has a lake, and do not go up a stream that has not.

"I closed my fisheries career with a very ambitious piece of work—the effort on the part of Canada and the United States to unify their statutes, so that the fisheries would be governed by the same laws on the Canadian side of the line in regard to salmon as they were on the United States side. I spent three summers at that work, and went over three times practically the whole length of the international boundary, and with my Canadian

colleague and Dr. Evermann, who was with me all the time, and the aid of a number of others, we got out, as I remember, fifty-nine statutes on which we agreed. Most of these were relatively unimportant. Some of them were very important, and those were very difficult. It was almost impossible to frame any kind of statute around Puget Sound that would reduce the number of fishes caught without making it harder for the fishing companies to make the business pay. It is really a difficult problem to prevent people from catching fish. We were more successful around the Great Lakes, but ran against another problem—states' rights. The State of Michigan followed up our work there by passing a state law beginning with, "Whereas, all the fishes in the waters surrounding the State of Michigan are the property of the State, Resolved, so and so." The purpose of that was to exclude, as far as they could by statute, all participation of the United States in those problems, making it a state problem, and not a national one. They adopted our recommendations almost without change, so that I think on the whole they were quite an improvement over ours, because they contained some things that we had not put into our regulations. When the regulations were all finished and came before the Government of the United States, all but ten were adopted, and these ten practically covered netting in the Great Lakes and in Puget Sound. Of course these particular ones that were omitted were in some ways least satisfactory, because they dealt with the problem of how to check the killing of fishes without interfering with the fishing industry, and any check is liable to have its injustices and its difficulties. One of the senators from Michigan, aided and abetted by various fishermen, objected to those netting regulations, on the ground of their interference with states' rights, and I understand that the senators from Washington were of the same mind. I understand also that the fisheries of Puget Sound have been showing a very distinct falling off.

"The red salmon grows to four years before it spawns, and, like all of our Pacific salmon, they die after spawning. As they reach the age of four years before they spawn, then whatever the fisheries may be of one year is determined by the number that spawned four years before.

"There has been on Puget Sound, for a great many years, one large run, with another large run four years later, and the three intervening runs are all very much smaller. That is apparently due to some period when a great run escaped, and this great run has been continued right along. We do not know what the reason really is, but we have supposed that all the weak runs might be made stronger, if we would allow the fishes to spawn, or to be spawned artificially, and properly planted.

The condition in Puget Sound is extremely difficult. Nearly all the salmon spawn in the Frazer River and its tributaries, and really all might be caught in the American waters before they get to Canada, for we have the first pull at them in the waters of the United States. The ultimate result was that the whole thing went by the board. There is a good deal of criticism now in Lake Erie over the failing of the fisheries, and I presume that some sort of regulation must be brought about in Puget Sound. Now, there's no way in which regulation can be brought about, except by the United States making a treaty with Canada, because the States of Washington and Michigan cannot make separate treaties with any country, and no agreement of any sort could have any validity unless it took the form of a treaty between the United States and Canada. Canada is now allowed to make her own treaties. I think the principle involved in this international commission, and in the attempts to unify the statutes, is a just one, yet it would involve a thing we have never had—a series of United States marshals looking after the fisheries on our side of all international waters. That is a matter that presents a good deal of expense and difficulty in itself. Any group of regulations, such as we proposed, would need a good

deal of amendment, for they have to be tried out. You can hardly expect any outsider not interested in the fisheries business to realize all the various intricacies of the problem. You can not, on the other hand, expect the people themselves, most of whom are more interested in what happens immediately than in the long future of the fisheries, to work out those problems.

"A few representatives of the Alaska Packers' Association are here, and even if they were not present, I should like to make an exception of them, because they have striven very earnestly to work for the long future, as well as for any immediate profits to the companies themselves. I have not felt that was always true of all the companies operating in Alaska. There is a sentiment found in the Northwest sometimes, that 'whatever is not nailed down, is mine, and whatever I can pry loose is not nailed down,' and that idea contributes sometimes to the detriment of all kinds of fishes and animals.

"The matter in regard to the international fisheries stands now practically as it did before. We are in need of some law or agreement, governing the matter along the international line. It is not possible to make any law or agreement except by treaty between the United States and Canada, and this treaty should be in the form of unification of statutes. The methods by which they should be framed and enforced are more difficult in Canada than with us, but the principles involved on both sides of the line are much the same, and the only serious and fundamental difficulty seems to lie in Puget Sound, where neither the standards that we propose, nor any others that we can think of, seem to be permanently satisfactory.

"While sometimes our efforts along the line of increased efficiency and better methods with regard to fisheries may seem for the present unavailing, you can not expect to see any results or consequences of such efforts in your life time; but there is still much satisfaction in the endeavor, if you know that the cause you work for will some time be prolific of good."

At the close of Dr. Jordan's address the session was temporarily suspended in an informal reception to the speaker.

The session being reconvened, Dr. H. C. Bryant, in charge of research, publicity and education for the California Fish and Game Commission, delivered a lecture on the "Conservation of Fish and Game Through Education." Dr. Bryant's remarks were illustrated by moving pictures taken in 1914 by Mr. E. A. Salisbury, of the Educational Film Co., working in co-operation with the California Fish and Game Commission and the United States Biological Survey.

At the close of the lecture the Society formally adjourned.

In Memoriam

JOHN O. BABBITT

CHARLES L. BENNETT

C. H. BUSCHMAN

LEWIS LINDSAY DYCHE

BARTON D. EVANS

A. R. GRAHAM

CHARLES S. GRINDLE

JOHN F. GUNCKEL

J. P. HALLER

CHARLES FREDERICK HOLDER

A. W. KENYON

W. L. MAY

JAMES K. P. PURDUM

GERALD SHERWIN

EDITORIAL

New Patrons and Members: Following the San Francisco meeting in September, 1915, Capt. Jefferson F. Moser, Vice-President of the Division of Commercial Fishing, made a special canvass of Pacific Coast firms interested in one way or another in fisheries or in fishing supplies and apparatus, and succeeded in adding fifty patrons to the Society's roll. The money derived from this source is held as a separate fund and invested, only the interest being used. It therefore serves as a sort of permanent endowment. Following is the list of patrons added to our membership list since the last meeting:

SAN FRANCISCO, CALIF.

| | |
|--|-----------------------------|
| Henry F. Allen, (Agent, Crown Mills) | 210 California St. |
| American Biscuit Co. | 815 Battery St. |
| American Can Co. | Mills Building |
| Armour & Co. | Battery & Union Sts. |
| Balfour, Guthrie & Co. | 350 California St. |
| Bank of California, N. A. | California and Sansome Sts. |
| Bond & Goodwin | 454 California St. |
| California Barrel Co. | 22d and Illinois Sts. |
| California Door Co. | 43 Main St. |
| California Stevedore & Ballast Co., Inc. | 210 California St. |
| Geo. W. Caswell Co., Inc. | 530-4 Folsom St. |
| C. G. Clinch & Co., Inc. | 144 Davis St. |
| Coffin-Redington Co. | 35-45 Second St. |
| Crane Co., (C. W. Weld, Mgr.) | 301 Brannan St. |
| Dodge, Sweeney & Co. | 36-48 Spear St. |
| W. P. Fuller & Co. | 301 Mission St. |
| Grays Harbor Commercial Co. | Foot of 3d St. |
| C. J. Hendry Co. | 46 Clay St. |
| The Jones-Thierbach Co. | Battery & Merchants Sts. |
| The Linen Thread Co., (W. A. Barbour, Mgr.) | 443 Mission St. |
| C. Nauman & Co. | 501-3 Sansome St. |
| Pacific Hardware & Steel Co. | 7th & Townsend Sts. |
| Pacific States Electric Co. | 575 Mission St. |
| Pope and Talbot | Foot of 3d St. |
| W. S. Ray Mfg. Co., Inc. | 216 Market St. |
| Schmidt Lithograph Co. | 2d & Bryants Sts. |
| Schwabacher-Frey Stationery Co. | 609-11 Market St. |
| Ship Owners' & Merchants' Tug Boat Co. | Foot of Green St. |
| The Sherwin-Williams Co. | 454 Second St. |
| Standard Gas Engine Co. | 1 California St. |
| Standard Oil Co. (of California) | Standard Oil Building |
| United Engineering Works | 232 Spear St. |
| U. S. Rubber Co. of California, (W. D. Rigdon, Mgr.) | 50-60 Fremont St. |
| U. S. Steel Products Co. | Rialto Building |
| Wells Fargo Nat'l Bank of San Francisco | Montgomery & Market Sts. |
| Western Fuel Co. | 430 California St. |
| Western Meat Co. | 6th & Townsend Sts. |
| White Bros., Hardwood Lumber | 5th & Brannan Sts. |

OAKLAND, CALIF.

Atlas Gas Engine Co., Inc. _____ Foot of 22d Avenue

MT. EDEN, CALIF.

Oliver Salt Co. _____

ASTORIA, OREGON.

Columbia River Packers' Assn. _____

SEATTLE, WASH.

Puget Sound Navigation Co. _____
Smith Cannery Machines Co. _____ 2423 South First Avenue

BELLINGHAM, WASH.

Bloedel Donovan Lumber Mills _____
Burpee & Letson, Ltd. _____ South Bellingham
First National Bank of Bellingham _____
Morrison Mill Co., Inc. _____
Morse Hardware Co., Inc. _____ 1025 Elk St.

BALTIMORE, MD.

The Fred H. Knapp Co. _____ Arcade-Maryland Casualty Building

WEIRTON, W. VA.

Phillips Sheet & Tin Plate Co. _____

The Society can stand a great deal more encouragement of this sort and it is to be hoped that every member of the Society will take it upon himself to interest his friends and acquaintances in becoming members, or, better still, patrons of the Society.

The Recording Secretary will be glad to supply all the application blanks necessary to any member desiring them.

A new by-law, passed at the last annual meeting, permits the election of applicants to membership at any time. The President, Treasurer and Recording Secretary of the Society form the election board.

Publication of Papers: It seems not to be generally understood among the members of the Society that papers may be presented for publication at any time without waiting for formal presentation at an annual meeting.

The Editor will also welcome short notes and articles that perhaps would not be considered sufficiently imposing for presentation at a meeting. Such notes, brief reports on some work, notice of any discovery, important appointments, and other interesting items may be sent in to the Editor at any time.

New Societies: The writer of Proverbs complained in his day that "of the making of books there is no end." The same might with almost equal propriety be applied at the present time to the formation of scientific societies. However, this seems to be a necessary condition of the increase and specialization of knowledge and interests. Two societies recently formed will no doubt be welcomed by various members of The American Fisheries Society.

The Ecological Society of America was formally organized at Columbus, during Convocation Week, and begins work with a membership of more than a hundred. Officers were elected as follows: President, Prof. V. E. Shelford, of the University of Illinois; Vice-President, Prof. W. M. Wheeler, of Harvard University; and Secretary-Treasurer, Dr. Forrest Shreve, of the Desert Laboratory. It is the intention of the society to hold frequent field meetings for the study of ecological problems. Numerous members of the new society are well known for their work on various phases of aquatic biology.

The American Society of Ichthyologists and Herpetologists is a still more recent organization formed at the first general meeting held in New York City on March 8, 1916. The purpose of the society, according to the by-laws, is to advance the science of fishes, batrachians and reptiles. As the new society is likely to be much more technical than the American Fisheries Society and has a different purpose in dealing with fishes, it is not likely that the two societies will overlap in much of their work even in this group. Most of the officers are well known to our Society: President, Professor Bashford Dean; Vice-Presidents, Dr. Leonhard Stejneger, Dr. Barton W. Evermann and Dr. Charles R. Eastman; Treasurer, Mr. Raymond L. Ditmars, and Secretary, Mr. John T. Nichols.

At the first general meeting twenty-two papers dealing with various phases of the society's work were read. The little journal *Copeia*, which has been running a couple of years, has been adopted as the official publication of the society, and will no doubt be greatly enlarged.